

# PATENT ABSTRACTS OF JAPAN

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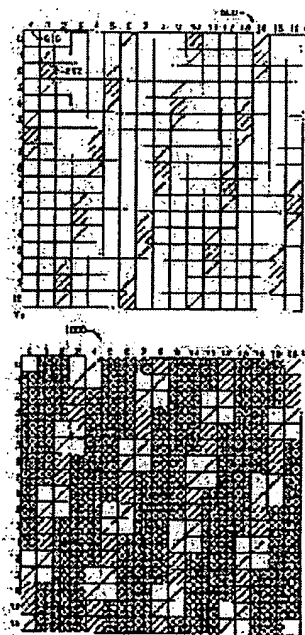
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## (54) SYSTEM PROVIDING HALF-TONE IMAGE

(57)Abstract:

PROBLEM TO BE SOLVED: To reduce moire pattern.

SOLUTION: The system provides a half-tone image having moire reduced by applying a screen function having a 1st function representing symmetry about a point and a 2nd function representing symmetry about a line. In the transition of a tone level, such a screen function generates a starting dot (600) to a dot (1000). For example, the screen function can have the total of a 1st function of  $(1 - \cos(\pi * (x+y)) * \cos(\pi * (y-x)))$  and a 2nd function as a section linear function of  $(x)$ . Here,  $(x, y)$  is the place of coordinates of a unit cell mapped to a half-tone cell, which is mapped to the grid of an image pixel. In another case, unit cells are defined on grids by vectors. The vectors have components along the axes of the grids. The components have noninteger length. The unit cells which are thus defined actualize a tangential angle which is a rational number that half-tone cell can not actualize.



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